

District of Columbia Space Grant Consortium
American University, Lead Institution
Richard Berendzen, Director
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<http://www.DCSpaceGrant.org>
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PROGRAM DESCRIPTION

The National Space Grant College and Fellowship Program consists of 52 state-based, university-led Space Grant Consortia in each of the 50 states plus the District of Columbia and the Commonwealth of Puerto Rico. Annually, each consortium receives funds to develop and implement student fellowships and scholarships programs; interdisciplinary space-related research infrastructure, education, and public service programs; and cooperative initiatives with industry, research laboratories, and state, local, and other governments. Space Grant operates at the intersection of NASA's interest as implemented by alignment with the Mission Directorates and the state's interests. Although it is primarily a higher education program, Space Grant programs encompass the entire length of the education pipeline, including elementary/secondary and informal education. The District of Columbia Space Grant Consortium (DCSGC) is a Program Grant Consortium funded at a level of \$660,000 for fiscal year 2010.

PROGRAM GOALS

We proposed the following goals for FY 10-11:

Fellowship/Scholarship Programs

Our goal was to competitively provide scholarships and fellowships to meet the needs of NASA and DC, with an emphasis on women, minorities, and persons with disabilities. Our objectives were to competitively provide 36 scholarships to undergraduate and graduate students in STEM disciplines (including 18 to female students, 26 to underrepresented minority students, and 4 to students with disabilities); to provide meaningful research opportunities to students; to increase the NASA/DCSGC presence in affiliate institutions; to facilitate student opportunities to work at NASA Centers; to provide mentoring for student researchers; to have 22 students become employed in a STEM field; and to have 14 students pursue an advanced STEM degree.

Higher Education Programs

Our goal was to attract and retain students pursuing advanced STEM degrees and/or careers. Our objectives were to provide robotics and ballooning activities for 12 undergraduate deaf students in STEM courses; to provide STEM career assessment software to 1,500 undergraduate students at 3 DC universities; to provide a new intermediate-level STEM course to 2 undergraduate students; to provide revisions in STEM courses for 28 undergraduate students and 6 graduate students; to provide VLF research opportunities and training to 16 faculty members, 39 undergraduate students,

and 4 graduate students, and produce a VLF research journal; to provide scholarships to undergraduate and graduate students; to arrange internships for 2 students; to provide funding to 2 faculty members who proposed meaningful student research activities; and to meet our target diversity participation level of 52.7% women and 41.6% minorities.

Research Infrastructure Programs

Our goal was to support students and faculty in STEM research opportunities at NASA Centers and universities. Our objectives were to provide research opportunities and experience presenting papers at scientific conferences to 3 undergraduate students and 1 faculty member; to provide mentoring to undergraduate students from 3 faculty members and 3 graduate students; to research and develop a next generation VLF receiver with a team of 4 faculty members, 3 undergraduate students, and 2 graduate students; to research and develop software for use in undergraduate STEM courses, analysis of NASA data, and support of NASA-sponsored websites; to provide a faculty member with hands-on research experience at NASA Goddard Space Flight Center (GSFC)'s Laboratory for Terrestrial Physics; to provide 2 faculty members with support in aeronautics research; to have a Master's thesis based on DCSGC-sponsored research; and to meet our target diversity participation level of 52.7% women and 41.6% minorities.

Precollege Programs

Our goal was to inspire K-12 students to pursue STEM disciplines and careers by supporting K-12 teacher training workshops and activities. Our objectives were to develop a new high school course in astronomy; to develop a robotics and engineering workshop; to provide CEUs and curriculum support through workshops where teachers learn to build telescopes and conduct research using live NASA data; to provide curriculum support in solar system science through 4 workshops; to send high school teachers and students from a school for the deaf and schools with high student minority populations for training at NASA Space Camp; to provide hands-on NASA opportunities to 6 deaf students; to train teachers to utilize an internet-based program that utilizes NASA data, research, and themes; to provide curriculum support through tuition grants for teachers to attend a STEM course at Howard University; to provide long-duration training to 43 teachers; to provide short-duration training to 101 teachers; and to have 73 teachers utilize the training in their classrooms.

Informal Education Programs

Our goal was to inform and inspire DC citizens about NASA and DCSGC opportunities. Our objectives were to host 5 activities; to collaborate with 6 informal education providers (including 2 museums); to host 9 family science nights; and to reach 462 members of DC's diverse population.

PROGRAM/PROJECT BENEFIT TO OUTCOME (1,2, OR 3)

The following anecdotes highlight students and projects we supported so far in FY 10-11:

Outcome 1

Nicole Hermann, who we supported in an internship in NASA Headquarters (HQ)'s History Division, was hired as a Strategic Analyst for the Exploration Systems Mission

Directorate at NASA Headquarters. She said of her experience, “I’m working at NASA HQ in the Exploration Systems Mission Directorate, none of which would have been possible without the support provided by the DC Space Grant while I was an intern.” A recent graduate, Nicole also was invited to present her capstone thesis research paper at the 62nd International Astronautical Congress (IAC) in South Africa.

Marcio Villanueva, a Hispanic DCSGC intern working on research and development for the new INSPIRE VLF-4 Receiver Kit, traveled to Huntsville, AL as part of his internship. While in Huntsville he became aware of new career opportunities, and was hired by Boeing in Huntsville as an Aerospace Engineer. He is currently working on the upper stage of the ARES project. Marcio continues to serve as a DCSGC INSPIRE Ambassador and will be submitting an article for inclusion in the INSPIRE Journal.

Two of our NASA GSFC student interns, Henry Fingerhut and Raul Garcia-Sanchez, were invited by their mentors at NASA GSFC to return to work on research projects they began the previous summer.

Jamaal Gray, an African-American computer science major who we supported in an internship at NASA GSFC, worked on a research project in Atmospheric Corrections. He contributed to a groundbreaking Atmospheric Correction proposal submitted by his NASA mentor, who offered him the opportunity to stay on-board with the program to continue his career. Jaamal was nominated by his NASA colleagues to serve as a NASA Student Ambassador for Howard University, and was 1 of 2 NASA GSFC interns invited by the Maryland Space Business Roundtable to participate in their monthly meetings to discuss their research findings and network with the professional scientific community. The second NASA GSFC intern, Deressie Mebratu, is also a DCSGC student, who is working on a research project in Robotics and GOES-R. Both Jamaal and Deressie will present their research at a NASA Poster Session in July 2011.

Laura Delgado, a Hispanic graduate student who we supported in a Space Policy Institute internship as a researcher for Project Ploughshare's Space Security Index and a correspondent for SpacePolicyOnline.com, was hired by the Institute for Global Environmental Strategies (IGES) in May 2011 as the Earth Observations Associate. At IGES, Laura will work on earth and space science education, communication, and outreach, and foster national and international cooperation in global Earth observations.

Robert Person, an African-American computer science major and DCSGC scholarship recipient, was part of the Howard University team that placed 4th in the 2011 ARTSI Robotics Competition at Florida A&M University.

Carmyn Robey, an African-American computer science major and DCSGC scholarship recipient, took 1st prize at the 100 Urban Entrepreneurs’ 60 Second Business Pitch event in April 2011 in Washington DC.

We supported Princess Alintah, an African-American dual biology and chemistry major, on a STEM research project for Quality Education for Minorities (QEM) Network. She

researched math and science education techniques for underrepresented groups, and ways to increase their recruitment and retention in STEM fields and careers as well as providing a summary of ideas and strategies for conducting community-based STEM education-focused outreach. Her results will be published in late summer 2011 in print and online. We also supported Alicia Anderson, and Jennifer Burrell, African-American graduate students, on a STEM research project for QEM. They tracked the academic and career pathways followed by more than 2,300 students (the majority of whom were minority) who participated in the NASA SHARP PLUS Research Program between 1993-2002. They co-authored a report of the findings that will be published in print and online in late Summer 2011 to all university host sites' faculty, program participants, NASA's Office of Education, and other scientific organizations.

As part of her NASA GSFC internship, Wanda Archy researched and published 5 articles for Earthzine's online magazine (www.earthzine.org) for the earth observation community, and will present her research at a NASA Poster Session in July 2011. Wanda said of her internship, "NASA Space Grant has given me the opportunity to give me hands-on experience on a career that I would love in the future. I am more determined now to do well in school so that in the future I could hopefully work for NASA long-term. I am so passionate about space and all the fields that NASA studies, that I am just thankful to have this unique internship."

Andrei Callejas, a Hispanic student who received a DCSGC scholarship to work on a project recruiting DC high school students to attend the University of the District of Columbia (UDC) and major in STEM, won 1st place in UDC's STEM Center's Annual Student Research Day for his project, and will be a recipient of UDC's Minority Access to Research Careers (MARC) U*STAR Honors Award in Fall 2011.

Thomas Denz, a mechanical aerospace engineering major, wrote a paper based on his experience working on a DCSGC research project on electric propulsion and presented it at the AIAA Student Conference at Old Dominion University.

Timothy Esch, a deaf biology major who had not been mainstreamed his entire life and attended a college with a small deaf student population, spent last summer at Gallaudet University where he worked alongside deaf scientists for the first time ever, on a DCSGC research project in the Biology Laboratory. It inspired him to pursue a post-baccalaureate STEM research position at the University of Pittsburgh. Rebecca Hull, a deaf biology major who also had never met a deaf scientist before, was so inspired by her experience on the DCSGC research project that she followed it up with a National Science Foundation Undergraduate Research and Mentoring (NSF-URM) fellowship.

Taylor Lofquist was a DCSGC intern at NASA HQ. She used her internship as the basis for her honors thesis, "A History of Red Planet Capital, Inc." Her 50 page thesis was the result of an original research project to tell the history of a venture capital firm partially funded by NASA during the George W. Bush Administration. Her thesis was named the best honors thesis for the Class of 2011 at George Washington University and is being published in a book from the Center for the Study of the Presidency and Congress, "A

Dialogue on Presidential Challenges and Leadership: Papers of the 2010-2011 Fellows.” Tayler said of her experience, “Thank you to the DCSGC for making this all possible!”

Mariel Rico was a DCSGC intern at NASA GSFC as a Safety Engineer/Safety Specialist in NASA's Occupational Safety and Health Division. Mariel participated in building engineering safety surveys and conducted electrical and chemical workplace safety research. Her NASA mentor asked her to compile her research findings and create a NASA Safety Bulletin that will be distributed to the NASA community in August 2011.

We supported Brienna Herold, a promising freshman biology major who is deaf, in an internship at Gallaudet University's Molecular Genetics Laboratory. The faculty member who arranged and mentored Brienna's internship was a former DCSGC scholarship recipient, Derek Braun, who also is deaf, and who is now a STEM faculty member and the Director of the Molecular Genetics Laboratory at Gallaudet University.

A faculty-student research team at George Washington University won 2nd place in the School of Engineering Research Showcase for their DCSGC research project on micropropulsion for small satellites. A patent has been applied for, and Interorbital Systems, Inc. is considering licensing the technology.

Ameha Esehete, an African-American student who participated in a DCSGC research project on cognitive networking for space communications and just graduated with a Bachelor's in computer science, enrolled in UDC's Master in Computer Science program because of the opportunity to continue working on this DCSGC research project.

Outcome 2

Denise Lewis, a precollege educator who has been the Assistant Regional Director for FIRST in DC since 2008, who we first met 5 years ago through our support of FIRST Robotics in the DC Public Schools, is now collaborating with us on her proposal to the National Space Grant Foundation for a Summer of Innovation Mini-Grant to host a “Robotics Exploration Day” in a DC neighborhood with a high minority population.

Ellen Babcock McLean, a high school physics teacher who we sent to Space Camp in Huntsville, AL, reports that she has seen a fourfold increase in the number of students going into the advanced placement physics classes since she started incorporating materials and lessons she obtained at Space Camp into her physics classes. She has presented on her experience at 5 workshops and recruited other teachers to participate.

Outcome 3

Jeff Goldstein, the Director of the National Center for Earth and Space Science Education, who we first met through our inclusion of the Challenger Center at our CapitalSpace dinner meetings 10 years ago, collaborated with us on an update to the Voyage in the Year of the Solar System exhibit on the National Mall. The DCSGC will have its name and/or logo included on the new stantions on the Mall as well as on the redesigned literature accompanying the exhibit.

The DCSGC-sponsored Young Women's Conference on Non-Traditional Careers - "STEM Towards the Future" was held at Gallaudet University. Attendees included 188 K-12 students, 11 school chaperones, 41 parents/guardians, 35 exhibit hosts, 14 volunteers, 12 staff members from the Office of the State Superintendent for Education, and 13 presenters and keynote speakers. 6 DCSGC affiliates participated in the conference. Speakers included Hosanna Mahaley, the State Superintendent for DC who is responsible for implementing the rollout of common core standards for DC's schools and managing the District's Race to the Top initiatives, DC City Council Member Harry Thomas, and Ted Trabue, President of the DC State Board of Education.

PROGRAM ACCOMPLISHMENTS

We made the following advancements so far towards our FY 10-11 goals:

Fellowship/Scholarship Programs

49 scholarships were awarded to undergraduate students at American University, Catholic University, Gallaudet University, Georgetown University, George Washington University, Howard University, Prince George's Community College, the University of the District of Columbia, the University of Maryland, and Western Michigan University. 11 scholarships were awarded to graduate students at Catholic University, Embry Riddle Aeronautical University, George Washington University, Howard University, the University of the District of Columbia, and VA Polytechnic Institute. 25 scholarships (41.7%) were awarded to females, 28 (46.7%) to underrepresented minority students, and 5 (8.3%) to students with disabilities. 25 students from American University, Catholic University, Embry Riddle Aeronautical University, Georgetown University, George Washington University, Howard University, Western Michigan University, the University of the District of Columbia, the University of Maryland, and VA Polytechnic Institute were matched with NASA mentors and university faculty on various internships and research projects. 15 students from the University of the District of Columbia served as STEM mentors to precollege students. 10 students from American University worked on independent research projects. It is too early to tell what percentage of this year's students will be retained and graduated in STEM disciplines or what percentage will seek or attain STEM employment, but the students have been added to the DCSGC longitudinal tracking database for annual follow-up.

Higher Education Programs

We supported a ChemDraw site license at Howard University, which is required software for use in all undergraduate chemistry courses. We supported the revision of 2 undergraduate computer science courses at Howard University through the Astronaut Jones Program. We supported the revision of an undergraduate physics course at Gallaudet University to include construction of an underwater remotely operated vehicle (ROV) as a semester-long student project. 2 teams of 9 deaf students participated in 14 weeks of undergraduate laboratories to build 2 ROVs, which were tested in the campus swimming pool. We supported the development of an undergraduate astronomy 100 course at Marymount University that is also being offered to Trinity Washington University. We supported the development of 2 new undergraduate chemistry courses at American University that will replace all upper level chemistry lab courses, and a new

undergraduate pilot lab activity in a biology lab course. We supported 3 INSPIRE Workshops that were held on the topic of “Teaching Science with an Enthusiastic Attitude” at the Young Women’s Conference on Non-Traditional Careers, the 2010 Society of Amateur Radio Astronomers Conference, and the Dayton Amateur Radio Association Conference. The workshops included VLF research and training for attendees. We supported the production of a VLF research journal and website. We supported a faculty-student team at the University of the District of Columbia on a research project on delay-tolerant networking. We supported 4 deaf students in summer research projects with deaf scientists at Gallaudet University, 3 students in space policy internships at NASA HQ and the Space Policy Institute, and 2 students in academic year research internships at Gallaudet University’s Molecular Genetics Laboratory and the Space Policy Institute. We supported 3 faculty-student research teams at American University following a competition in which faculty members from every science department submitted proposals for meaningful student research activities. Students received scholarship stipends for their internships and research projects.

Research Infrastructure Programs

We supported a Gallaudet University faculty member with hands-on research experience one day a week at NASA Goddard Space Flight Center (GSFC)’s Laboratory for Terrestrial Physics (Science Mission Directorate), working with a NASA mentor on remote sensing data processing and updates to the NASA-sponsored website www.oceanmotion.org, the software for which is used in undergraduate STEM courses. We supported a faculty-student team at George Washington University in an aeronautics research project on micropropulsion for small satellites, which resulted in research papers being presented at a scientific conference and a pending patent. We supported a faculty-student team at Georgetown University in a research project on the development of an integrated micro-fluidic and micro-optic lab-on-a-chip for potential use by astronauts on extended spaceflights. We supported laboratory upgrades at Howard University that resulted in collaboration with other institutions such as the University of Wisconsin on joint Science and Technology Center (STC) proposals for additional funding, and Gallaudet University on a joint Research Experience for Undergraduates (REU). We began research and development of a next generation VLF-4 receiver kit with a team of faculty members, university students, high school teachers, scientists, and administrative staff. A previous generation VLF kit was used in a lab-based undergraduate course at the University of Maryland. The new kit will be more user-friendly, and efforts will be made to incorporate its use into more undergraduate STEM courses. We supported a faculty member at the University of the District of Columbia in an aeronautics research project on cognitive networking for space communications. A DCSGC intern at NASA HQ used her internship as the basis for her honors thesis, which was named the best honors thesis for the Class of 2011 at George Washington University and is being published in a book.

Precollege Programs

We supported Space Explorers, Inc.’s hands-on teacher training in an internet-based program that utilizes NASA data, research, and themes to 42 K-12 teachers at Burroughs Elementary School, Cleveland Elementary School, Hamilton Academy, Hendley Elementary School, Langdon Educational Campus, Maya Angelou Public Charter

School, Powell Elementary School, and River Terrace Elementary School. We recognized outstanding STEM K-12 teachers in the DCPS through a city-wide nomination process, and the top placed teachers were given Space TiViTz classrooms kits to incorporate into their curricula. We supported 1 K-12 teacher and one faculty member in mentoring a team of 6 deaf students from the Model Secondary School for the Deaf in the 2011 Greater DC Regional Botball Tournament. The team placed 29th out of 36, but it received the Spirit of Botball Award. We supported space weather K-12 teacher training workshops for 74 teachers from 6 schools. A teacher who has begun implementing the training into her classroom reports that her students do not want to stop their NASA research when it is snack time. We helped support 11 K-12 teachers and 20 of their students at Space Camp in Huntsville, AL (in conjunction with NASA MSFC). All of the teachers incorporated NASA resources into their classrooms.

Informal Education Programs

We sponsored the Young Women's Conference on Non-Traditional Careers - "STEM Towards the Future" – at Gallaudet University. The conference program was written as a resource guide, providing information on presenters, STEM career opportunities, mentoring opportunities, and networking information. It included interactive exhibits and workshops. Attendees included 188 precollege students, 11 K-12 school chaperones, 41 parents/guardians, 35 exhibit hosts, 14 volunteers, 12 staff members from the Office of the State Superintendent for Education, and 13 presenters and keynote speakers. We supported David DelMonte, JPL's Solar System Ambassador for Washington DC, in activities reaching high minority populations. Presentations on the solar system using NASA resources were held at Bruce Monroe Elementary School, McKinley High School, and Savoy Elementary School that reached approximately 470 precollege students, parents, K-12 teachers, school administrators, informal educators, and members of the general public. Assistance was provided for a Science Fair at St. Anthony's Elementary School that reached approximately 256 precollege students, K-12 teachers, school administrators, and informal educators. Support was provided for a website and space science newsletter that provides follow-up for attendees of the Solar System Ambassador's activities. We provided partial support of the NanoExpress, a nanotechnology lab on wheels which visits schools throughout the DC metro area with high minority populations. We worked with the NCESS to update the Voyage in the Year of the Solar System exhibit on the National Mall, which will reach millions of visitors each year when the total project is completed in 2012. We sponsored 6 Family Science Nights at the Smithsonian Air & Space Museums in Washington DC and Dulles, VA that reached approximately 1,820 precollege students, parents, K-12 teachers, school administrators, informal educators, and members of the general public.

NASA 2010 Education Priorities

We made the following accomplishments so far to support NASA's Current Areas of Emphasis, including 1 area (Community Colleges) that we did not anticipate supporting:

- Authentic, hands on student experiences: Our scholarships and higher education programs incorporated internships, robotics, and other hands-on research projects. 1 of our precollege programs includes K-12 student hands-on participation in

Space Camp with their teachers. 1 of our informal education programs involves a nanotechnology lab on wheels where students get to do hands-on experiments and 1 is a series of Family Science Nights where students engage in hands-on NASA-related problem solving.

- Engage middle school teachers: All of our precollege programs involve engaging middle school teachers in hands-on curriculum enhancement opportunities for them to incorporate into their classrooms and expose their students to NASA resources. Our informal education programs include presentations at schools, science fairs, and Family Science Nights that involve the participation of middle school teachers.
- Summer opportunities for secondary students: Our scholarships, higher education, and research programs included summer internship programs on college campuses.
- Community Colleges: Since there are no community colleges in the District, we experimented with supporting a student from Prince George's Community College, a predominantly African-American community college located just outside the District in Prince George's County. The student has shown great promise and plans to pursue an internship opportunity at NASA GSFC next year.
- Aeronautics research: Our scholarships and higher education programs included internship and research projects that incorporated aeronautics research.
- Environmental science: We supported a hands-on research experience for a faculty member in NASA GSFC's Laboratory for Terrestrial Physics that included analysis of data on earth's environments and K-12 teacher training workshops on space weather.
- Diversity: The institutions, faculty, and students involved in our scholarship, research, higher education, precollege, and informal education programs were diverse. Our affiliates include HBCUs and OMIs. 46.7% of the students in our programs were underrepresented minorities.
- Enhanced capacity: Our research infrastructure programs included opportunities for faculty to engage in research geared towards NASA priorities in the Science Mission Directorate.

PROGRAM CONTRIBUTIONS TO PART MEASURES

- Longitudinal Tracking: All of the students we support with direct scholarship funding or who participate in higher education or research infrastructure programs for 160 hours or more are in the DCSGC longitudinal tracking database and are monitored for progress through an annual survey. Since 2006, we have supported 131 students in the fellowship/scholarship category, 15 students in the higher education category, and 3 students in the research infrastructure category (including current year awardees). 67 of the students were underrepresented minority students and 21 of the students had disabilities. 71 of the students were female. 89 of the students are still enrolled in their current degree program, 16 have graduated and are pursuing advanced STEM degrees, 8 have graduated and are seeking STEM employment, 3 are employed in STEM as aerospace contractors, 24 are employed in STEM in non-aerospace positions, 2 are

employed by NASA, 2 are employed in a STEM higher education academic field, and 5 are employed in a non-STEM field.

- **Course Development:** We supported the development and/or revision of 7 higher education courses targeted at the STEM skills needed by NASA. The courses include 2 undergraduate computer science courses at Howard University that incorporate game design, an undergraduate physics course at Gallaudet University that incorporates the construction of an underwater ROV in a laboratory, an undergraduate astronomy course at Marymount University, 2 new undergraduate chemistry courses at American University that incorporate student-driven research projects, and a new undergraduate pilot lab activity in a biology lab course at American University. In addition, the research and development undertaken on the new VLF-4 receiver kit will result in the revision of additional undergraduate courses that incorporate it into the curriculum.
- **Matching Funds:** We leveraged \$563,907 in matching funds, for a ratio of .85:1, or 85 cents for every NASA dollar.
- **Minority-Serving Institutions:** We supported scholarships and programs at 2 HBCUs (Howard University and the University of the District of Columbia) and 1 university for the deaf (Gallaudet University). We also supported programs at a minority-serving non-profit (S.M.A.R.T., Inc.), supported programs in the DC Public Schools which are predominantly African-American, and supported a student scholarship at Prince George's Community College, a predominantly African-American community college. We established new relationships with 2 minority-serving organizations, Quality Education for Minorities (QEM) Network and Mount Airy in Action. We supported several students at non-DC universities who came to our MSIs for internships. We attempted to facilitate internships for Howard University students at Connecticut Space Grant Consortium institutions that were looking for higher minority involvement, but it did not work out.

IMPROVEMENTS MADE IN THE PAST YEAR

We made several improvements and adjustments over the past year. We more than doubled the number of student awards; we updated our Strategic Plan with input from all affiliate members; we hired a new student assistant; we created new consortium-wide program reporting forms; we designed and launched a DCSGC FaceBook page to advertise our programs and other STEM opportunities; we collaborated with new affiliates and partners; we made administrative changes to increase efficiency; we established new interdisciplinary review committees that include members of other Space Grant Consortia; we developed new methods and strategies for longitudinal tracking that have made a big difference; and we increased the 5-year average percentage of female participation in our programs from 41.7% last year to 47.7% this year.

PROGRAM PARTNERS AND ROLE OF PARTNERS IN PROJECT EXECUTION

In addition to working with various organizations on particular aspects of certain programs, the following 20 institutions are DCSGC members, affiliates, and partners:

- American University (Lead Institution): private university – supports scholarship, higher education, precollege, and informal education programs, as well as managing the consortium
- Aries Scientific: nonprofit – supports higher education and precollege programs
- Catholic University: private university – supports scholarship programs
- Gallaudet University: minority institution/federally chartered/quasi-governmental university for the deaf and hard of hearing – supports scholarship, precollege, research, and higher education programs
- Georgetown University: private university – supports scholarship and research programs
- George Washington University: private university – supports scholarship and research programs
- Howard University: HBCU/private university – supports scholarship, higher education, and research programs
- Mount Airy in Action: community – supports informal education programs
- NASA Goddard Space Flight Center: government – supports scholarship and higher education programs
- NASA Headquarters: government – supports scholarship and higher education programs
- National Center for Earth and Space Science Education: science center – supports precollege and informal education programs
- Office of the D.C. State Superintendent of Education: government – supports informal education and precollege programs
- Owen Software: industry – supports higher education programs
- Quality Education for Minorities Network: non-profit – supports scholarship and higher education programs
- Solar System Ambassadors: government – supports informal education programs
- S.M.A.R.T., Inc.: nonprofit – supports precollege, higher education, and informal education programs
- Space Explorers, Inc.: nonprofit – supports precollege programs
- The INSPIRE Project, Inc.: nonprofit – supports scholarship, research, precollege, and higher education programs
- Trinity Washington University: minority institution/private university for women – supports scholarship and higher education programs

- University of the District of Columbia: HBCU/public university – supports scholarship, higher education, and research programs